

### Introduction

Many entities provide community facilities and services—the County, state and federal agencies, special districts, and the private sector. Maintaining a high degree of coordination between these providers helps ensure that adequate facilities are available and improvements keep pace with **DEVELOPMENT**. By proactively siting facilities and infrastructure, we can help direct the future development patterns proposed in the Land Use Element. Proactive planning will also minimize potential environmental impacts.

This Element addresses community services related to utilities, telecommunications infrastructure, solid waste disposal, and WASTEWATER. It also covers the County's role in promoting infrastructure for health and human services and education. The goals and policies are designed to ensure that we plan for adequate services and facilities, either during the land development process or through appropriate government programs.

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## The Conservation Framework Relationship

The goals and policies in this Element are strongly related to the **CONSERVATION FRAME-WORK**. Developing new infrastructure can negatively affect the environment if we do not consider potential impacts during planning. Major utility corridors containing high-voltage power lines and other infrastructure may cause **HABITAT FRAGMENTATION** and disrupt wildlife movement. This Element address ways to conserve valuable water resources by reusing treated wastewater or allowing it to recharge **AQUIFERS**. Another conservation-oriented goal is reducing the amount of solid waste we send to landfills.

All five ecological principles of the Conservation Framework apply to the goals and policies in this Element. In addition, Conservation Guidelines A, B, D, & E are particularly important to making land use decisions that consider wildlife; likewise, Conservation Guideline G addresses the importance of conserving our precious water resources.

## **Our Purpose & Vision**

Our county vision includes having adequate public facilities to support desirable land use and development patterns while conserving natural resources. It also involves having quality health and human services, as well as effective, accessible educational opportunities. The *Coconino County Comprehensive Plan* establishes policies that provide guidance for siting utility infrastructure in a way that respects our community character, scenic resources, and ecological integrity. These policies also encourage environmentally compatible solid-waste management and wastewater treatment methods and endorse the best available telecommunications services and infrastructure.









# **Utility Services & Corridors**

Local utility services are generally critical to development. Public utility companies provide water, electricity, telephone, natural gas, and cable television services under the regulatory authority of the ARIZONA CORPORATION COMMISSION. In some cases, utilities are also provided by special IMPROVEMENT DISTRICTS. Unlike some municipalities, Coconino County does not provide utilities. However, the County considers the availability of utilities when reviewing SUBDIVISION proposals and when siting local utility generating plants, substations, reservoirs, and similar installations through the CONDITIONAL USE PERMIT process. It must also consider the effects of infrastructure and natural resource use on the environment.

Utilities are a consideration in determining appropriate development patterns. For example, in areas that lack public utilities, very low-density development is often considered most appropriate. Conversely, where utilities exist and installing infrastructure is efficient and cost effective, high-density development is generally more feasible. One way to reduce environmental impacts, along with utility and infrastructure costs, is to implement INTEGRATED CONSERVATION DESIGN techniques in new developments. Another way is to reduce the need for utility infrastructure through long-term solutions—energy CONSERVATION, alternative energy sources, public transportation, and WATER CONSERVATION.

Utility providers are included in the earliest stages of the subdivision review process. The County works with them to determine whether utilities are available, whether infrastructure upgrades are needed, and whether additional easements or other improvements are needed. The Coconino County Subdivision Ordinance requires that developers provide a certain level of utility infrastructure depending on the subdivision classification, which varies according to average lot size. Subdivisions with the smallest average lot size (and therefore the highest density) require the highest level of utility improvements. As average lot size increases (and density decreases), fewer utility improvements are required. On the other hand, lands developed through LOT SPLITS are not subject to the same level of improvements required for subdivisions. In those situations, individual builders work directly with utility providers for line extensions. In remote areas, line extensions, transformers, and other equipment are often cost-prohibitive for individual property owners.

Major utility corridors—those carrying high-voltage power lines, natural gas or coal slurry pipelines, and underground fiber-optic cables—present challenges on a LANDSCAPE scale. These corridors cross tribal, federal, state, and private land-management jurisdictions. Although the County typically has no regulatory authority in siting these lines, it participates in the public review process and has historically requested that they follow existing infrastructure routes. These corridors play an important role in development. Because permanent structural improvements are usually impossible in utility corridors and easements, they may limit development. In addition, because of their size and linear orientation, these corridors can cause HABITAT FRAGMENTATION, disrupt wildlife movement patterns, and change hydrologic patterns. However, through creative planning and management approaches, corridors can be designed to minimize impacts. They may even be incorporated into developments as amenity features for TRAILS, OPEN SPACES, or GREEN-WAYS.

Goal: Promote the installation of utilities in a manner compatible with community character, scenic resources, conditions.

#### **Policies:**

Approval of development projects shall be considered only if public utilities or alternative technologies necessary to serve the use are available or can be provided by the developer.

#### **CONDITIONAL USE PERMIT**

A permit issued by the Planning & Zoning Commission for a use that is allowed within a zoning district after a public hearing. With approval, the Commission typically applies certain conditions on the location and operation of this use













- 2. Utilities infrastructure shall be located in a manner sensitive to environmental and scenic resources. See Conservation Guidelines: B, C, E, F
- 3. The County encourages placing utility distribution lines underground whenever possible; where above-ground utility infrastructure and facilities are installed, all efforts should be made to minimize environmental, visual, and aesthetic impacts. See Conservation Guidelines: A, C, K
- 4. The County encourages utility providers to locate new transmission lines, pipelines, and other transcounty utilities in existing infrastructure corridors whenever possible.

  SEE CONSERVATION GUIDELINES: A, C, E, F
- 5. The County encourages cooperation between developers and the owners of utility corridors to use such corridors for trails, open space, and greenway features. SEE CONSERVATION GUIDEUNES: B, C

### **Telecommunications Infrastructure**

Efficient telecommunications infrastructure is necessary for public safety, convenience, economic development, and educational outreach through distance learning. In areas without land lines, wireless communication may be the most feasible option for basic telephone service. However, towers and related structures are often considered unsightly when they impact the aesthetic qualities of surrounding landscapes. It is important to balance our need for the best available telecommunications services with the need to protect our valuable scenic resources and maintain neighborhood character.

Under the federal *Telecommunications Act of 1996*, local governments must accommodate telecommunications infrastructure; furthermore, they may not adopt regulations that would ban such facilities or inhibit competition among providers. However, local jurisdictions may regulate the siting of such facilities. Identifying appropriate sites requires collaboration between the County, providers, land management agencies, and the public. It involves identifying technical requirements and exploring ways to limit the number of structures to the minimum necessary for service, mitigate the visual impact of these structures, and minimize impacts to wildlife **HABITAT**.

In 2001, the **BOARD OF SUPERVISORS** amended the *Coconino County Zoning Ordinance* to establish a process, performance standards, and guidelines for siting and constructing wireless telecommunications facilities. These facilities, with a few exceptions, require a **CONDITIONAL USE PERMIT** from the **PLANNING & ZONING COMMISSION**. The ordinance specifies zoning classifications and indicates where such facilities are permitted. It also includes a prioritized list of preferred types of locations, as well as a list of sites which have higher **CONSERVATION** values. Performance standards and design requirements stipulate maximum height, setbacks, color, and materials.

Goal: Promote telecommunications service development while preserving the visual character of communities and landscapes.

#### **Policies:**

- Telecommunication facilities shall be sited in a manner that is in harmony with neighborhood character, scenic resources, wildlife and their habitat, and the surrounding environment. See Conservation Guidelines: B, C
- 7. The County promotes the conservation of landscape-scale viewsheds through the efficient and effective development of telecommunication infrastructure.

SEE ALSO

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Community Character: Scenic Vistas & Viewsheds













### Solid Waste

Managing solid waste is an important consideration in community planning. In Coconino County, we manage solid waste by recycling it or burying it in a landfill, most often the City of Flagstaff's Cinder Lakes Landfill in Doney Park. One major private hauler has also constructed a transfer facility and hauls waste to a landfill in Joseph City in Navajo County. The City offers curbside recycling services and transports recyclables to a materials-recovery facility on Butler Avenue. In unincorporated areas, however, recycling is subject to individual initiative. Some private haulers offer recycling services, and individuals can haul their recyclables to the Flagstaff facility. Efforts are ongoing to increase recycling to reduce the amount of waste hauled to landfills.

The Subdivision Ordinance requires subdividers to indicate in their development proposal the distance between the new development and an approved sanitary landfill or solidwaste transfer station. If this distance exceeds 10 miles, the subdivider must form a sanitation district to construct, operate, and maintain a new facility. This requirement may be waived if the subdivision is served by adequate private collection.

Goal: Reduce solid waste and minimize the impact of its disposal.

#### **Policies:**

- 8. In coordination with waste hauling services, residents, and businesses, the County supports efforts to reduce the quantity of solid waste and to maximize the recovery of all recyclable materials. SEE CONSERVATION GUIDELINES: G, I
- 9. Proposed methods of solid waste disposal and recycling must be considered in the planning for major developments and subdivisions. SEE CONSERVATION GUIDELINES: G, I

### Wastewater

The goal of WASTEWATER regulation is to protect GROUNDWATER, the environment, and public health. The Arizona Department of Environmental Quality (ADEQ) regulates community wastewater systems and the Coconino County Environmental Health Division regulates on-site wastewater systems—septic leach fields and other systems—as delegated by ADEQ.

Methods for handling wastewater depend on the nature of the site and the density of development. In most unincorporated county areas, individuals have on-site systems. In low-density areas with good soils and deep groundwater, these systems generally work well. However, some areas have poor soil conditions or high seasonal groundwater levels, which can make on-site systems difficult and expensive to develop. Some alternative on-site systems treat wastewater to a higher quality than most community plants. Reusing this treated wastewater—or reclaimed water—on site benefits water conservation and AQUIFER RECHARGE. Also, federal and state aquifer protection rules allow "cluster systems" to serve several adjacent properties. In addition, INTEGRATED CONSERVATION DESIGN techniques can provide benefits in areas where individual on-site systems are difficult or impractical.

A few unincorporated communities are served by centralized wastewater treatment systems, most of which are privately owned and operated. Centralized systems are beneficial for many reasons, especially for high-density development where lot sizes are too small to accommodate individual systems. The disadvantages of centralized systems are that they require a large amount of infrastructure, they are expensive to build and operate, and they sometimes fail, resulting in massive overflows or spills of untreated sewage into the environment. Another negative aspect of centralized treatment systems is that they often discharge the treated wastewater outside of the aquifer where it originated.

#### SEE ALSO

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Water Resources: Water Quality











Using reclaimed water can serve several conservation goals. Reclaimed water can be used to create community amenities or **OPEN SPACE** features. It can also be used to irrigate golf courses, playing fields, and landscaping; to create or enhance **WETLAND HABITAT**; to augment or maintain water flow in streams; and to recharge groundwater. For example, the Kachina Village wetlands project benefits wildlife **SPECIES** and creates amenities such as walking **TRAILS**. It also provides educational and research opportunities, and facilitates a cooperative partnership between the Kachina Village Improvement District (KVID), **NORTHERN ARIZONA UNIVERSITY (NAU)**, Arizona Game and Fish, Ducks Unlimited, and the Northern Arizona Audubon Society, among others.

Goal: Promote environmentally compatible wastewater disposal methods.

#### **Policies:**

- 10. The County encourages the use of environmentally sensitive on-site wastewater treatment systems and cluster systems in conjunction with other integrated conservation design techniques wherever possible in lieu of conventional septic systems. SEE CONSERVATION GUIDELINES: G, I
- 11. Development projects that include centralized community wastewater systems are encouraged to recycle or reuse treated wastewater for environmentally beneficial uses. See Conservation Guidelines: G, I

### **Health & Human Services**

Coconino County provides a broad range of services to groups such as the poor, the elderly, children and youth, and the disabled. The County provides these services through its Departments of Community Services and Health Services. Other service providers include the **NORTHERN ARIZONA COUNCIL OF GOVERNMENTS (NACOG)**, various state agencies, and the private sector.

The County encourages other agencies and the private sector to establish health care facilities, medical facilities, and other human services. Providers should coordinate with the County to ensure that services are appropriately integrated into the communities where they are needed most. The conditional use permit process provides a forum for public review to ensure that siting of new facilities reflects the neighborhood character and enhance public health, safety, and welfare.

A number of public health threats may affect residents exposed through contact with insects, rodents, and wildlife, or through household pets that have contact with such carriers. The Environmental Health Division routinely issues public health advisories when outbreaks occur and provides public information about symptoms and prevention. As population increases in rural areas, the County's role in public education will become more important. Residents in these areas also must accept responsibility for recognizing such hazards and taking preventive actions to protect their homes, properties, and domestic animals from exposure to disease-causing agents.

Goal: Ensure high-quality health and human services.

#### **Policies:**

12. In coordination with health and human service organizations, the County promotes establishing health and human services and appropriate facilities in a manner compatible with surrounding neighborhoods and with consideration to both existing and potential future populations. SEE CONSERVATION GUIDELINES: B, K













13. Development projects shall avoid creating conditions that increase opportunities for the breeding or proliferation of disease-causing agents carried by insects, rodents, wildlife, or other vectors.

### Education

Coconino County offers a wide array of educational opportunities. COCONINO COUNTY COMMUNITY COLLEGE (CCC) and NAU offer continuing education. CCC has two campuses in Flagstaff, and one each in Page, Williams, and the Grand Canyon. CCC offers associate degrees within transfer-oriented programs, as well as professional / technical certificates and degrees. NAU offers both undergraduate and graduate degree programs. NAU's main campus is located in Flagstaff, with distance-learning facilities in Page (colocated at the CCC campus) and Tuba City. Students can also take classes at CCC and





NAU via instructional television or the Internet. Coconino County has nine school districts, providing services to over 20,000 school-aged children in 2002. There were also 15 charter schools at that time, to which 1,500 students attended. The majority of charter schools are in Flagstaff; others are in Leupp, Alpine Ranchos, and Page. Home schooling has also been a popular alternative for about 1,000 students. Other schools located within county boundaries are operated by tribal governments and the BUREAU OF INDIAN AFFAIRS.

The Coconino County Career Center in Flagstaff provides training for youth and adults who want to enter or re-enter the workforce. Open to anyone, the center offers job listings, computers, phones, and a fax to help job seekers develop applications and resumes. Assistance for low-income customers includes basic education and vocational training.

The County Superintendent of Schools is elected to provide fiscal processing and educational programming support to the schools and residents of Coconino County. Mandated responsibilities include: maintaining teacher and administrator certification records; filing reports with the state school superintendent; keeping a register of and drawing warrants for school district expenditures; providing assistance to school

districts and charter schools on the use of student data, staff development, curriculum alignment, and technology; arranging for election services to school districts; maintaining affidavits of home schooling; and appointing governing board members to fill vacancies. Although not mandated, the County Superintendent also operates an accommodation school for at-risk and detained students and serves as a fiscal/project administrator for several specialized education programs that extend beyond the boundaries of individual school districts.

Goal: Provide for effective and accessible educational opportunities.

#### **Policies:**

- 14. In the review for expansion or development of existing or new schools, considerations should be made so that all areas of the county are adequately served, especially in the large growth areas with high populations of school-aged children. SEE CONSERVATION GUIDE-
- 15. The County supports the development and implementation of distance-learning capacity into all educational programs.









